

IS-US030581

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of :
Adrian Meredith Sunter et al. : Patent Art Unit: 3721
Serial No.: 10/724,114 : Examiner: WEEKS, GLORIA R.
Filed: December 1, 2003 :
For: WEIGHING AND FLAVORING SYSTEM, :
AND PACKAGING APPARATUS :
:

AMENDED BRIEF ON APPEAL

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ATTACHMENT: Replacement sheet for Figure 6B

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AMENDED BRIEF ON APPEAL

Commissioner of Patents
United States Patent and Trademark Office
Washington, D.C. 20231

Sir:

For the appeal to the Board of Patent Appeals and Interferences from the decision dated September 14, 2005 of the Examiner finally rejecting claims 1-26, and in response to the Notification of Non-Compliant Appeal Brief mailed on May 4, 2006, Applicants-Appellants submit the following amended appeal brief in accordance with 37 C.F.R. §41.37.

I. Real Party In Interest

ISHIDA, CO. LTD. is the owner in the above-identified patent application. Thus, the real party in interest is ISHIDA, CO. LTD.

2. Related Appeals and Interferences

Appellants and Appellants' legal representatives are not aware of any appeals or interferences relating to the above-identified patent application.

3. Status of Claims

Claims 1-26 are presently pending in this application, with claims 1, 9, 14, and 20 being the independent claims. All of claims 1-26 stand finally rejected in view of prior art. All of claims 1-26 are being appealed. More Specifically, claims 1-26 stand rejected under §103(a) as being unpatentable over U.S. Patent No. 2,805,639 to Martin ("Martin patent") in view of U.S. Patent No. 5,832,700 to Kammler ("Kammler patent"). Also in the September 14, 2005 Office Action, the specification is objected to.

4. Status of Amendments

Appellants wish to amend the specification as shown in the attached amendment to overcome the objection to the specification. Appellants also wish to amend Figure 6B as attached hereto to correct a typographical error. Appellants believe that the amendments to the specification and Figure 6B do not add any new matter, and respectfully request the attached amendments to the specification and Figure 6B be entered.

All other amendments submitted in the instant application have been entered.

5. Summary of Claimed Subject Matter

The presently claimed invention is directed to a weighing and flavoring system (claims 1-13), an apparatus for packaging articles (claims 14-19), and a method for packaging articles (claims 20-26).

The weighing and flavoring system of the present invention is designed to produce flavored articles to which an adequate amount of flavoring has been added, in view of the fact

that the amount of flavoring supplied to articles is often different from the amount of flavoring actually added to the articles. In one aspect, the weighing and flavoring system sorts out flavored articles to which an excessive or insufficient amount of flavoring has been added, by setting a threshold value that is determined based on the quantity of the articles prior to the flavoring and comparing the quantity of the flavored articles with the threshold value.

In another aspect the weighing and flavoring system of the present invention is designed to perform feedback control on the amount of flavoring to be added based on the quantity of unflavored article and the quantity of the flavored article.

The weighing and flavoring system of the present invention includes a measurer (for example, combinational weigher 1 shown in Figs. 1 to 3 and 5A, and described in Paragraph 0049), a flavoring apparatus (for example, flavoring apparatus 20 shown in Figs. 1, 3, 4A-4D and 5A, and described in Paragraphs 0050 to 0057), a check measurer (for example, check weigher 300 shown in Fig. 1 and 5A, and described in Paragraphs 0062 to 0063) that is disposed downstream of the flavoring apparatus, setting means (for example, remote controller 50 shown in Figs. 5A and 6, and described in Paragraphs 0066 to 0079) for setting a threshold value based on the quantity of unflavored articles as measured by the measurer, and a sorting unit (for example, classifier 62 shown in Figs. 1 and 5A, and described in Paragraph 0065) that sorts out the flavored articles based on the threshold value and the quantity of flavored articles as measured by the check measurer. The control unit also controls the quantity of flavoring to be added to articles by the flavoring apparatus based on the quantity (weight in the embodiments) of unflavored articles as measured by the measurer and the quantity (weight in the embodiments) of flavored articles as measured by the check measurer.

In other words, the weighing and flavoring system of the embodiments weighs articles (S1 in Figure 6A), flavors the measured articles (S2), packages the flavored articles (S3), checks the weight of the packaged flavored articles (S4), and sorts out the packages according to the weight of the package (S5). Also, the amount of flavoring to be added is adjusted based on the weight of the flavored articles and the weight of the unflavored articles (Figure 6G). In this manner, the weighing and flavoring system checks the adequacy of flavoring by measuring the quantity (weight in the embodiments) of articles before and after the flavoring.

More specifically, the measurer measures the quantity of articles before the articles are flavored (Wc shown in Figure 6B, see Paragraph 0070), while the check measurer measures the quantity of flavored articles (Wd shown in Figure 6E, see Paragraph 0073). Threshold values (for example SH1-SH3, SL1-SL3 shown in Figure 7, see Paragraphs 00103 and 00104), based on which the sorting is performed, are determined based on the quantity of the unflavored articles (Wc). In the embodiment, the reference weight ($\sum W$) is the sum of the weight of the unflavored articles (Wc), the weight of the flavoring to be added (Ws), and the weight of a bag (Wb)(see Paragraph 00101). The sorting unit sorts the flavored articles into different categories as shown in Figures 6F and 7 based on the difference (Δ) between the reference weight ($\sum W$) and the actual weight of the flavored articles (Wd) and the threshold values (SH1-3, SL1-3) (S45 in Figure 6E, see Paragraphs 00113 to 00125). Also, the weight of flavoring to be added (Ws) is adjusted based on the difference (Δ) (S62, S64 in Figure 6G), which corresponds to the difference between the weight of flavoring to be added (Ws) and the weight of flavoring that actually adhered to the articles (see Paragraph 00109).

The apparatus for packaging articles according to the present invention includes a weigher for dispensing a predetermined quantity of articles (for example, combinational weigher 1 shown in Figs. 1 to 3 and 5A, and described in Paragraph 0049), and adds additive

or flavoring to articles using an additive dispenser (for example, flavoring supply apparatus 40 shown in Figs. 3 and 4A, and described in Paragraphs 0050 to 0057), and packages the articles to which the additive has been added with a packaging machine (for example, bag-making packager 200 shown in Figs. 1, 3 and 5A, and described in Paragraphs 0058 to 0061). The apparatus also has a check weigher (for example, check weigher 300 shown in Fig. 1 and 5A, and described in Paragraphs 0062 to 0063) that monitors the combined weight of the package and the mixture of the articles and the actually added additive, and a controller (for example, remote controller 50 shown in Figs. 5A and 6, and described in Paragraphs 0066 to 0079) that controls the amount of additive to be added by the additive dispenser based on an output from the check weigher. In this manner, the apparatus for packaging articles of the present invention performs feedback control on the weight of additive to be added based on the weight of articles without additive and the combined weight of the package and the mixture of the articles and the actually added additive.

The method for packaging articles of the present invention includes dispensing articles (see, for example, Paragraph 0087 and Figs 6A and 6B), supplying additive to the articles (see, for example, Paragraphs 0089 to 0093 and Figs. 6A and 6C), packaging the mixture of the articles and the additive (see, for example, Paragraphs 0094 to 0096 and Figs. 6A and 6D), monitoring the combined weight of the package and the mixture of the articles and the actually added additive (see, for example, Paragraphs 0097 to 00111 and Figs. 6A and 6E), and adjusting the quantity of the additive to be supplied based on the combined weight of the package and the mixture (see, for example, Paragraphs 00126 to 00130 and Fig. 6G).

6. Grounds of Rejections to be Reviewed on Appeal

The following issue is presented for review:

- (A) Whether claims 1-26 are rendered unpatentable over U.S. Patent No. 2,805,639 to Martin in view of U.S. Patent No. 5,832,700 to Kammler et al. under 35 U.S.C. §103.

7. *Arguments*

Appellants believe that the claims on appeal are not anticipated or rendered obvious by the Martin patent and the Kammler patent, individually or in combination. Arguments in support of Appellants' assertions are presented below.

BRIEF SUMMARY OF ARGUMENTS

- A. *The Martin Patent And the Kammler Patent Fail to Show or Suggest the Setting of Threshold Value Based on the Quantity of Unflavored Articles as Measured by Measurer, Which is Required by Claims 1-8*
- B. *The Martin Patent And the Kammler Paetnt Fail to Show or Suggest the Control Means Required by Claims 9-13 That Controls the Quantity of the Flavoring Based on the Quantity of Flavored Articles and the Quantity of Unflavored Articles*
- C. *The Martin Patent And the Kammler Patent Fail to Show or Suggest the Controller Required by Claims 14-19 That Adjusts the Quantity of Additive Supplied by the Additive Dispenser in Response to Output From Check Weigher*
- D. *The Martin Patent And the Kammler Patent Fail to Show or Suggest the Adjusting of the Quantity of Additive Supplied Based on the Combined Weight of Package And Flavored Articles, Which is Required by Claims 20-26*

The foregoing arguments are explained in more detail below.

A. The Martin Patent And the Kammler Patent Fail to Show or Suggest the Setting of Threshold Value Based on the Quantity of Unflavored Articles as Measured by Measurer, Which is Required by Claims 1-8

Claim 1 specifically requires *setting means for setting a threshold value based on the quantity of the articles as measured by the measurer*. Appellants believe that the Martin patent and the Kammler patent do not anticipate or suggest the setting means required by claim 1.

The Office Action of September 14, 2005 appears to have two different theories as to which part of the references corresponds to the setting means of claim 1. More specifically, the Office Action on pages 2-3 asserts that the setting means is *not* shown in the Martin patent, stating that:

“Martin does not disclose the use of a control or setting means for checking the quantity of flavored articles after packaging.”

The Office Action then asserts that the setting means is disclosed in the Kammler patent, stating on page 3, lines 1 et seq. that:

“Kammler et al. teaches a measuring and packaging system having a measurer (30), a check measurer (17) downstream of the measurer (20) [sic]; vertical form, fill and seal packager; a control or *setting means* (31) for setting at least one threshold value based on the quantity of articles (column 4, lines 27-31); and a sorter (39).” (Emphasis added.)

On the other hand, on page 3, lines 20 et seq., the Office Action also appears to assert that the pump 7 of the Martin corresponds to the setting means of claim 1, stating that:

“Martin discloses a *setting means* (7) capable of controlling the amount of oil (flavoring) placed in the chamber (8) based on the amount of popcorn (product) distributed by the measurer (4) to the chamber (8)[.]” (Emphasis added.)

Appellants wish to emphasize that what is required of the setting means by claim 1 is to *set a threshold value based on the quantity of the articles as measured by the measurer*, *not* to control the amount of oil. Furthermore, Appellants wish to point out that claim 1 uses

the term “means for” and clearly sets forth the function for the setting means, although the Office Action appears to assert that there is no “means for” language in claim 1. In any case, Appellants believe that the setting means of claim 1 is not disclosed or suggested by the Martin patent and the Kammler patent, whether taken individually or in combination.

THE PUMP 7 OF THE MARTIN PATENT DOES NOT SET THRESHOLD VALUE FOR FLAVORED ARTICLES BASED ON THE QUANTITY OF UNFLAVORED ARTICLES MEASURED BY THE MEASURER

As discussed above, the Office Action on page 3, lines 20 et seq. asserts that the pump 7 of the Martin patent corresponds to the setting means of claim 1. In response, Appellants respectfully traverse the assertion of the Office Action.

More specifically, Appellants believe that the pump 7 of the Martin patent does not perform the function set forth in claim 1. Column 2, lines 62-68 of the Martin patent describes the function of the pump 7 as follows:

The oil is passed through a variable-speed oil pump 7; this pump is set to control the proper amount of blended oil to the mixing chamber 5. The proper mixture of blended oil for popcorn being [sic] 2½ oz. of blended oil to 16 oz. of raw popcorn. The raw popcorn should have a moisture content of 13½ percent.

Clearly, the pump 7 merely controls the supply of oil such that a predetermined amount of oil (such as 2½ oz.) is supplied. There is no disclosure or suggestion in the Martin patent that the pump 7 is or can be used to *set a threshold* to be used for sorting of the flavored popcorns.

Thus, Appellants believe that the Martin patent does not disclose or suggest any structure that corresponds to the setting means of claim 1. Accordingly, Appellants believe that the Martin patent does not anticipate or render obvious the arrangement of claim 1.

THE CONTROL MECHANISM 31 OF THE KAMMLER PATENT DOES NOT SET THRESHOLD VALUE FOR FLAVORED ARTICLES BASED ON THE QUANTITY OF UNFLAVORED ARTICLES MEASURED BY THE MEASURER

As discussed above, the Office Action on page 3, lines 1 et seq. asserts that the control mechanism 31 of the Kammler patent corresponds to the setting means of claim 1, and that the ejecting device 39 corresponds to the sorting unit. In response, Appellants respectfully traverse the assertion of the Office Action.

More specifically, Appellants believe that the control mechanism 31 of the Kammler patent does not perform the function set forth in claim 1. Basically, the sorting of the Kammler patent is performed to exclude products whose weights are too high or too low relative to the target weight. Column 4, lines 46-50, the Kammler patent describes the ejecting device 39, which according to the Office Action corresponds to the sorting unit, as:

“When a created, filled tubular bag 9 does not meet the ***tolerance requirements*** i.e. mass too high or too low, it is ejected horizontally out of the flap mechanism 22 by the ejecting device 39 with the flap mechanism 22 staying closed.” (Emphasis added.)

Furthermore, column 4, lines 31-35 of the Kammler patent describes the function of the control mechanism 31 as:

“The control mechanism 31 compares the net mass value with a ***stored desired product mass value***. When the mass is correct, the foil tube 6 is transversely welded by the cross-sealing jaws 7, is separated by the separating device 12, and is removed downwardly by opening the flap mechanism 22” (Emphasis added.)

In other words, if the ejecting device 39 corresponds to the sorting unit as the Office Action asserts, it is the “tolerance requirement” that should correspond to the threshold value of claim 1. Thus, if the control mechanism 31 corresponds to the setting means as the Office Action asserts, the control mechanism 31 should be able to alter the tolerance requirement based on the quantity of the product. However, as described in column 4, lines 31-35 of the Kammler patent, the threshold by which it is determined whether to eject a bag is a fixed ***stored desired product mass value***. There is no description in the Kammler patent that the stored desired product mass value is alterable by the control mechanism 31.

Furthermore, Appellants also believe that the Kammler patent does not suggest that the desired product mass value be alterable at all. Basically, the threshold value of the present invention is designed to be alterable by the setting means because of the flavoring, whose weight is relatively unpredictable since the amount of flavoring to be supplied tends to be different from the actual amount of flavoring that adheres to the articles (*see* paragraph [00109] of the specification). In the Kammler patent, there is no disclosure or suggestion that any flavoring is added to the product. Thus, there is no flavoring to control the weight of. In other words, ***there is no need to set a separate threshold value*** to control the quantity of the flavoring; the pre-designated product mass value, which is the fixed target value for the measurement of the product, alone suffices in the Kammler patent.

Thus, Appellants believe that the Kammler patent does not disclose or suggest the setting means. In other words, Appellants believe that the Kammler patent does not disclose or suggest the arrangement of claim 1, whether taken singularly or in combination with the Martin patent.

Furthermore, Appellants believe that dependent claims 2-8 are not anticipated or rendered obvious by the Martin patent and the Kammler patent, since they depend from claim 1 and are therefore narrower. Thus, Appellants believe that claims 1-8 are allowable over the prior art of record.

B. *The Martin Patent And the Kammler Patent Fail to Show or Suggest the Control Means Required by Claims 9-13 That Controls the Quantity of the Flavoring Based on the Quantity of Flavored Articles and the Quantity of Unflavored Articles*

Claim 9 specifically requires ***control means for controlling the predetermined quantity of the flavoring based on the quantity of the flavored articles as measured by the check measurer***. In other words, the control means of claim 9 performs a feedback control

on the quantity of the flavoring to be supplied based on the quantity of the flavored articles. Appellants believe that the Martin patent and the Kammler patent do not anticipate or suggest the control means required by claim 9.

The Office Action of September 14, 2005 appears to deem that the setting means of claim 1 and the control means of claim 9 are identical, and have two different theories as to which part of the references corresponds to the control means of claim 9, which are advanced above. Appellants believe that the control means of claim 9 is not disclosed or suggested by the Martin patent and the Kammler patent, whether taken singularly or in combination.

THE PUMP 7 OF THE MARTIN PATENT DOES NOT PERFORM FEEDBACK CONTROL ON THE SUPPLY AMOUNT OF FLAVORING BASED ON THE QUANTITY OF FLAVORED ARTICLES AND THE QUANTITY OF UNFLAVORED ARTICLES

As discussed above, the Office Action appears to assert that the pump 7 of the Martin patent corresponds to the control means of claim 9. However, as described in column 2, lines 62-68 of the Martin patent and discussed above, the pump 7 merely controls the amount of oil to be supplied so that the oil is supplied up to the predetermined amount. There is no disclosure or suggestion in the Martin patent that the pump 7 performs a *feedback control on the amount of oil to be supplied*. In the meantime, claim 9 clearly requires that the control means control the predetermined quantity of the flavoring to be supplied based on the quantity of the flavored articles and the quantity of the unflavored articles.

Thus, Appellants believe that the Martin patent does not disclose or suggest the arrangement of claim 9.

THE CONTROL MECHANISM 31 OF THE KAMMLER PATENT DOES NOT PERFORM FEEDBACK CONTROL ON THE SUPPLY AMOUNT OF FLAVORING BASED ON THE QUANTITY OF FLAVORED ARTICLES AND THE QUANTITY OF UNFLAVORED ARTICLES

As discussed above, the Office Action appears to assert that the control mechanism 31 of the Kammler patent corresponds to the control means of claim 9. As stated on page 4, lines 1 et seq. of the Office Action, the Kammler patent is cited as a secondary reference “to

disclose the concept of providing a setting means capable of adjusting the product flow of a **measurer** based on the output of a checker measurer.” (Emphasis added.) Appellants wish to point out that claim 9 requires the control means to control the **quantity of flavoring** to be supplied by the **flavoring apparatus, not** the quantity of unflavored articles measured by the **measurer**.

In the Kammler patent, there is no flavoring apparatus. Thus, the Kammler patent cannot possibly disclose or suggest that the control mechanism 31 perform the feedback-control on the amount of flavoring to be supplied by the flavoring apparatus.

In other words, Appellants believe that the Kammler patent does not disclose or suggest the control means required by claim 9. Thus, Appellants believe that the Kammler patent does not disclose or suggest the arrangement of claim 9, whether taken singularly or in combination with the Martin patent.

Furthermore, Appellants believe that dependent claims 10-13 are not anticipated or rendered obvious by the Martin patent and the Kammler patent, since they depend from claim 9 and are therefore narrower. Thus, Appellants believe that claims 9-13 are allowable over the prior art of record.

C. The Martin Patent And the Kammler Patent Fail to Show or Suggest the Controller Required by Claims 14-19 That Adjusts the Quantity of Additive Supplied by the Additive Dispenser in Response to Output From Check Weigher

Claim 14 specifically requires a **controller that adjusts the quantity of additive to be supplied by the additive dispenser in response to an output from the check weigher**. In other words, the controller of claim 14 performs a feedback control on the weight of the additive to be supplied based on the combined weight of the package and the mixture.

Appellants believe that the Martin patent and the Kammler patent do not anticipate or suggest the controller required by claim 14.

Although the Office Action does not specifically describe which element of the cited references is deemed to correspond to the controller of claim 14, Appellants assume that it is either the pump 7 of the Martin patent or the control mechanism 31 of the Kammler patent, in view of the similarity between the requirement for the controller of claim 14 and that for the control means of claim 9.

THE PUMP 7 OF THE MARTIN PATENT DOES NOT PERFORM FEEDBACK CONTROL ON THE SUPPLY AMOUNT OF ADDITIVE BASED ON THE COMBINED WEIGHT OF THE PACKAGE AND THE MIXTURE

Discussion regarding the Martin patent has been advanced above. As discussed above, the amount of additive to be supplied in the Martin patent is a fixed predetermined value. The Martin patent does **not** disclose or suggest any feedback control being performed on the amount of additive to be supplied.

In addition, Appellants believe that the Martin patent does not disclose or suggest **two separate structures** that **each** correspond to the additive dispenser **and** the controller.

Appellants further believe that, if the pump 7 corresponds to one of the additive dispenser and the controller required by claim 14, the Martin patent does not disclose or suggest any other structure that corresponds to the other of the additive dispenser and the controller, since the pump 7 is the only component disclosed in the Martin patent that relates to the control of supplying oil to popcorns.

Furthermore, the Martin patent does not disclose any packaging apparatus. Thus, although claim 14 requires that the quantity of additive be adjusted based on **the combined weight of the package and the mixture**, the Martin patent **cannot** disclose or suggest feedback control adjustment that utilizes the weight of the package.

Thus, Appellants believe that the Martin patent does not disclose or suggest the method of claim 14.

THE CONTROL MECHANISM 31 OF THE KAMMLER PATENT DOES NOT PERFORM FEEDBACK CONTROL ON THE SUPPLY AMOUNT OF ADDITIVE BASED ON COMBINED WEIGHT OF THE PACKAGE AND THE MIXTURE

Furthermore, Appellants believe that there is no disclosure or suggestion that the control mechanism 31 of the Kammler patent performs a feedback control on the amount of additive to be supplied. As discussed above, the Kammler patent does **not** disclose or suggest any additive dispenser. Thus, the Kammler patent **cannot** possibly disclose or suggest the feedback control on the amount of additive to be supplied.

Thus, Appellants believe that that the Kammler patent and the Martin patent do not disclose or suggest the arrangement of claim 14, whether singularly or in combination.

Furthermore, Appellants believe that dependent claims 15-19 are not anticipated or rendered obvious by the Martin patent and the Kammler patent, since they depend from claim 14 and are therefore narrower. Thus, Appellants believe that claims 14-19 are allowable over the prior art of record.

D. *The Martin Patent And the Kammler Patent Fail to Show or Suggest the Adjusting of the Quantity of Additive Supplied Based on the Combined Weight of Package And Flavored Articles, Which is Required by Claims 20-26*

Claim 20 is directed to a **method of packaging articles**, and specifically requires the step of **adjusting the quantity of additive** to be supplied such that the **combined weight of the package and the mixture** meets predetermined requirements. In other words, the adjusting step of claim 20 is a feedback control on the quantity of additive based on the combined weight of the package and the mixture. Although the Office Action does not specifically describe which part of the cited references is deemed to correspond to the adjusting step of

claim 20, Appellants believe that the Martin patent and the Kammler patent do not anticipate or suggest this adjusting step required by claim 20.

THE MARTIN PATENT DOES NOT DISCLOSE OR SUGGEST FEEDBACK CONTROL ON THE SUPPLY AMOUNT OF ADDITIVE BASED ON THE COMBINED WEIGHT OF THE PACKAGE AND THE MIXTURE

Discussion regarding the Martin patent has been advanced above. As discussed above, the amount of additive to be supplied in the Martin patent is a fixed predetermined value. The Martin patent does *not* disclose or suggest any feedback control being performed on the amount of additive to be supplied.

Furthermore, the Martin patent does not disclose any packaging apparatus. Thus, although claim 20 requires that the quantity of additive be adjusted based on *the combined weight of the package and the mixture*, the Martin patent cannot disclose or suggest the feedback control adjustment that utilizes the weight of the package.

Thus, Appellants believe that the Martin patent does not disclose or suggest the method of claim 20.

THE KAMMLER PATENT DOES NOT DISCLOSE OR SUGGEST FEEDBACK CONTROL ON THE SUPPLY AMOUNT OF ADDITIVE BASED ON COMBINED WEIGHT OF THE PACKAGE AND THE MIXTURE

Discussion regarding the Kammler patent has also been advanced above. As discussed above, although the Kammler patent discloses a packaging apparatus, it does not disclose or suggest an additive dispenser. Thus, there *cannot* be any disclosure or suggestion of feedback control on the quantity of additive to be supplied in the Kammler patent.

Thus, Appellants believe that the Kammler patent and the Martin patent do not disclose or suggest the method of claim 20, whether singularly or in combination.

Furthermore, Appellants believe that dependent claims 21-26 are not anticipated or rendered obvious by the Martin patent and the Kammler patent either, since they depend from

claim 20 and are therefore narrower. Thus, Appellants believe that claims 20-26 are allowable over the prior art of record.

8. Conclusion

In view of the above analysis, Appellants believe that claims 1-26 are not rendered unpatentable by the Martin patent and the Kammler patent under 35 U.S.C. §103.

Thus, Appellants respectfully request that the rejections of claims 1-26 be reversed, and that claims 1-26 be allowed. If there are any questions regarding this Brief, please feel free to contact the undersigned.

Respectfully submitted,

/Steven Roberts/

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9. *Claims Appendix*

1. (Original) A weighing and flavoring system for producing bags containing flavored articles, said weighing and flavoring system comprising:
 - a measurer for measuring a quantity of articles;
 - a flavoring apparatus, disposed downstream of said measurer, for supplying a predetermined quantity of flavoring, thus flavoring the articles;
 - a check measurer, disposed downstream of said flavoring apparatus, for measuring a quantity of the flavored articles;
 - setting means for setting at least one threshold value based on the quantity of the articles as measured by said measurer; and
 - a sorting unit for sorting the flavored articles based on said at least one threshold value according to the quantity of the flavored articles as measured by said check measurer.
2. (Original) The weighing and flavoring system according to claim 1, wherein:
said at least one threshold value includes a plurality of low limit values and a plurality of high limit values.
3. (Original) The weighing and flavoring system according to claim 1, wherein:
said at least one threshold value includes a minimum low limit value, which indicates that no flavoring has been added by said flavoring apparatus.
4. (Original) The weighing and flavoring system according to claim 1, further comprising

control means for controlling the predetermined quantity of the flavoring supplied by said flavoring apparatus based on the quantity of the flavored articles as measured by said check measurer and the quantity of the articles as measured by said measurer.

5. (Previously Presented) The weighing and flavoring system according to claim 4, wherein:

a quantity of the flavoring actually added to the articles by said flavoring apparatus is calculated from the quantity of the flavored articles as measured by said check measurer and the quantity of articles as measured by said measurer, and

said control means controls the predetermined quantity of the flavoring supplied by said flavoring apparatus based on the quantity of the flavoring actually added to the articles.

6. (Previously Presented) The weighing and flavoring system according to claim 1, further comprising:

a packager for packaging the flavored articles into a package, said packager being disposed between said flavoring apparatus and said check measurer,

said check measurer measuring the quantity of the flavored articles taking into account a quantity of the package in which said packager packages the flavored articles.

7. (Original) The weighing and flavoring system according to claim 1, wherein: the predetermined quantity of flavoring supplied by said flavoring apparatus is determined based on the quantity of the articles as measured by said measurer.

8. (Original) The weighing and flavoring system according to claim 1, wherein:

the predetermined quantity of flavoring supplied by said flavoring apparatus is determined based on a type of the flavoring to be supplied.

9. (Original) A weighing and flavoring system for producing bags containing flavored articles, said weighing and flavoring system comprising:

- a measurer for measuring a quantity of articles;
- a flavoring apparatus, disposed downstream of said measurer, for supplying a predetermined quantity of flavoring, thus flavoring the articles;
- a check measurer, disposed downstream of said flavoring apparatus, for measuring a quantity of the flavored articles; and
- control means for controlling the predetermined quantity of the flavoring supplied by said flavoring apparatus based on the quantity of the flavored articles as measured by said check measurer and the quantity of the articles as measured by said measurer.

10. (Previously Presented) The weighing and flavoring system according to claim 9, wherein:

- a quantity of the flavoring actually added to the articles by said flavoring apparatus is calculated from the quantity of the flavored articles as measured by said check measurer and the quantity of articles as measured by said measurer, and
- said control means controls the predetermined quantity of the flavoring supplied by said flavoring apparatus based on the quantity of the flavoring actually added to the articles.

11. (Previously Presented) The weighing and flavoring system according to claim 9, further comprising:

a packager for packaging the flavored articles into a package, said packager being disposed between said flavoring apparatus and said check measurer,

said check measurer measuring the quantity of the flavored articles taking into account a quantity of the package in which said packager packages the flavored articles.

12. (Original) The weighing and flavoring system according to claim 9, wherein:
the predetermined quantity of flavoring supplied by said flavoring apparatus is determined based on the quantity of the articles as measured by said measurer.

13. (Original) The weighing and flavoring system according to claim 9, wherein:
the predetermined quantity of flavoring supplied by said flavoring apparatus is determined based on a type of the flavoring to be supplied.

14. (Original) An apparatus for packaging articles, said apparatus being adapted to apply an additive to the articles and comprising
a weigher for dispensing a predetermined quantity of the articles;
an additive dispenser for supplying a quantity of the additive to the dispensed predetermined quantity of the articles to produce a mixture;
a packaging machine to which the dispensed quantities of articles and additive are supplied, said packaging machine packaging the dispensed quantities of the articles and additive in a package;
a check weigher for monitoring a combined weight of the package and the mixture;
and
a controller for controlling said additive dispenser in response to an output from said check weigher in order to adjust the quantity of additive supplied by said additive dispenser,

such that the combined weight of the package and the mixture meets a predetermined requirement.

15. (Original) The apparatus according to claim 14, further comprising a mixer disposed upstream of said packaging machine for producing the mixture by mixing in the dispensed quantities of articles and additive.

16. (Original) The apparatus according to claim 15, wherein said mixer includes an Archimedean screw.

17. (Original) The apparatus according to claim 14, wherein said weigher is a combinational weigher.

18. (Original) The apparatus according to claim 14, wherein said packaging machine is a vertical form fill seal packaging machine.

19. (Original) The apparatus according to claim 14, wherein said dispenser includes a bulk hopper and a compressed gas transport.

20. (Original) A method for packaging articles, comprising steps of:
dispensing a predetermined quantity of the articles;
supplying a quantity of additive to the dispensed predetermined quantity of the articles to produce a mixture;
packaging the dispensed quantities of the articles and the additive in a package;
monitoring the combined weight of the package and the mixture; and

adjusting the quantity of additive supplied such that the combined weight of the package and the mixture meets predetermined requirements.

21. (Original) The method according to claim 20, wherein
the mixture is produced by mixing the dispensed predetermined quantity of the articles with the quantity of the additive prior to said packaging.

22. (Original) The method according to claim 20, wherein
the articles are dispensed by a combinational weigher.

23. (Original) The method according to claim 20, wherein
the dispensed predetermined quantity of the articles and the quantity of additive are packaged using a vertical form fill seal packaging machine.

24. (Original) The method according to claim 20, wherein
the articles are a foodstuff.

25. (Original) The method according to claim 24, wherein
the foodstuff are potato chips.

26. (Original) The method according to claim 20, wherein
the additive is a flavoring.

10. Evidence Appendix

None

11. Related Proceedings Appendix

None

12. *Amendment to Specification*

Please replace the abstract with the following amended version:

-- A weighing and flavoring system includes a measurer for measuring articles, a flavoring apparatus disposed downstream of the measurer for supplying flavoring in a predetermined quantity, thus flavoring the articles, a check measurer that measures the quantity of the flavored articles, a controller setting means for setting at least one threshold value based on the quantity of the articles as measured by the measurer, and a sorting unit that performs sorting according to the weight of the flavored articles based on the threshold value. --

Replacement Sheet

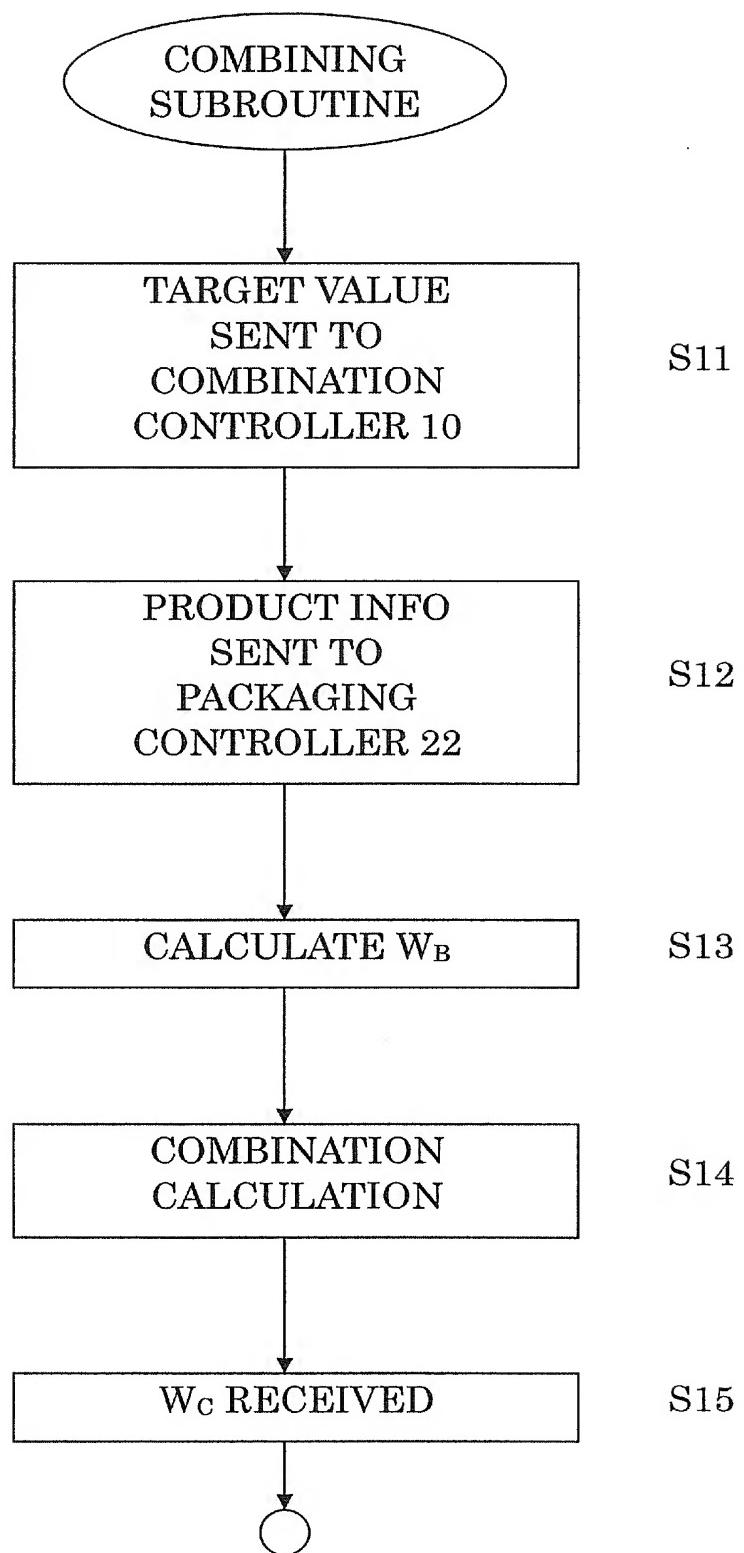


Fig. 6B